

WEST Search History

DATE: Thursday, March 11, 2004

Hide?	Set Name	Query	Hit Count
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<input type="checkbox"/>	L25	l21 and l22 and l23 and L24	3
<input type="checkbox"/>	L24	l18	33
<input type="checkbox"/>	L23	l16	36
<input type="checkbox"/>	L22	l13	8
<input type="checkbox"/>	L21	l12	97
<input type="checkbox"/>	L20	L19	1
<i>DB=USPT; PLUR=YES; OP=OR</i>			
<input type="checkbox"/>	L19	(terminating same link\$1)and L18	1
<input type="checkbox"/>	L18	application\$1 and L17	33
<input type="checkbox"/>	L17	link\$1 and interface\$1 and L16	34
<input type="checkbox"/>	L16	reliability and l12	36
<input type="checkbox"/>	L15	5644715.pn.	1
<input type="checkbox"/>	L14	5995490.pn.	1
<input type="checkbox"/>	L13	l2 and L12	8
<input type="checkbox"/>	L12	l10 and L11	97
<input type="checkbox"/>	L11	l7 or l8 or l9	5707
<input type="checkbox"/>	L10	probabilit\$3 and l1	1446
<input type="checkbox"/>	L9	718/104-106.ccls.	1140
<input type="checkbox"/>	L8	709/225-229.ccls.	3384
<input type="checkbox"/>	L7	370/401.ccls.	1420
<input type="checkbox"/>	L6	709/200-203.ccls.	3593
<input type="checkbox"/>	L5	6570867.pn.	1
<input type="checkbox"/>	L4	6430154.pn.	1
<input type="checkbox"/>	L3	6519254.pn.	1
<input type="checkbox"/>	L2	L1.ti.	184
<input type="checkbox"/>	L1	(quality adj2 service) or (QOS)	7064

END OF SEARCH HISTORY

WEST Search History

Hide Items

Restore

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<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
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<input type="checkbox"/>	L3	6519254.pn.	1
<input type="checkbox"/>	L2	L1.ti.	184
<input type="checkbox"/>	L1	(quality adj2 service) or (QOS)	7064

INVENTOR
SEARCH
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3-11-03

END OF SEARCH HISTORY

Hit List

Clear

Generate Collection

Print

Fwd Refs

Bkwd Refs

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Search Results - Record(s) 1 through 3 of 3 returned.

☐ 1. Document ID: US 6640248 B1

Using default format because multiple data bases are involved.

L25: Entry 1 of 3

File: USPT

Oct 28, 2003

US-PAT-NO: 6640248

DOCUMENT-IDENTIFIER: US 6640248 B1

TITLE: Application-aware, quality of service (QoS) sensitive, media access control (MAC) layer

DATE-ISSUED: October 28, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jorgensen; Jacob W.	Folsom	CA		

US-CL-CURRENT: 709/226; 370/328, 370/338, 709/223, 709/229, 709/235

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMOC	Draw Desc	Image
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☐ 2. Document ID: US 6223222 B1

Using default format because multiple data bases are involved.

L25: Entry 2 of 3

File: USPT

Apr 24, 2001

US-PAT-NO: 6223222

DOCUMENT-IDENTIFIER: US 6223222 B1

TITLE: Method and system for providing quality-of-service in a data-over-cable system using configuration protocol messaging

DATE-ISSUED: April 24, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fijolek; John G.	Naperville	IL		
Beser; Nurettin B.	Evanston	IL		

US-CL-CURRENT: 709/227; 370/236

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMOC	Draw Desc	Image
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☐ 3. Document ID: US 6154778 A

Using default format because multiple data bases are involved.

L25: Entry 3 of 3

File: USPT

Nov 28, 2000

US-PAT-NO: 6154778

DOCUMENT-IDENTIFIER: US 6154778 A

TITLE: Utility-based multi-category quality-of-service negotiation in distributed systems

DATE-ISSUED: November 28, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Koistinen; Jari	Palo Alto	CA		
Seetharaman; Aparna	Redwood City	CA		
Kirshenbaum; Evan R.	Mountain View	CA		

US-CL-CURRENT: 709/228; 370/230, 370/395.2, 370/395.21, 709/227, 709/239, 709/240

Full	Title	Citation	Front	Review	Classification	Date	Reference	File History	Examination	Claims	KWIC	Draw Desc	Image
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Clear

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Fwd Refs

Bkwd Refs

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Terms

Documents

L21 and L22 and L23 and L24

3

Display Format:

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[Previous Page](#)[Next Page](#)[Go to Doc#](#)

[First Hit](#) [Fwd Refs](#)

Generate Collection

Print

L13: Entry 6 of 8

File: USPT

Nov 28, 2000

US-PAT-NO: 6154778

DOCUMENT-IDENTIFIER: US 6154778 A

TITLE: Utility-based multi-category quality-of-service negotiation in distributed systems

DATE-ISSUED: November 28, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Koistinen; Jari	Palo Alto	CA		
Seetharaman; Aparna	Redwood City	CA		
Kirshenbaum; Evan R.	Mountain View	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Hewlett-Packard Company	Palo Alto	CA			02

APPL-NO: 09/ 081265 [\[PALM\]](#)

DATE FILED: May 19, 1998

INT-CL: [07] [G06 F 13/00](#), [G06 F 15/16](#), [H04 Q 11/00](#)

US-CL-ISSUED: 709/228; 709/227, 709/240, 709/239, 370/230, 370/395

US-CL-CURRENT: [709/228](#); [370/230](#), [370/395.2](#), [370/395.21](#), [709/227](#), [709/239](#), [709/240](#)

FIELD-OF-SEARCH: 709/228, 709/203, 709/227, 709/240, 709/241, 709/223, 709/224, 709/239, 370/395, 370/409, 370/230, 370/465

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	5065393	November 1991	Sibbitt et al.	70/58.2
<input type="checkbox"/>	5408465	April 1995	Gusella et al.	370/17
<input type="checkbox"/>	5491797	February 1996	Thompson et al.	709/200
<input type="checkbox"/>	5644715	July 1997	Baughar	395/200.04
<input type="checkbox"/>	5674003	October 1997	Andersen et al.	364/514R
<input type="checkbox"/>	5732078	March 1998	Arango	370/355
<input type="checkbox"/>	5802058	August 1999	Harris et al.	370/410
<input type="checkbox"/>	5832197	November 1998	Houji	714/4
<input type="checkbox"/>	5892754	April 1999	Kompella et al.	370/236

<input type="checkbox"/> 5898668	April 1999	Shaffer	370/230
<input type="checkbox"/> 5946311	August 1999	Alexander, Jr. et al.	370/395
<input type="checkbox"/> 5948069	September 1999	Kitai et al.	709/240
<input type="checkbox"/> 5995490	November 1999	Shaffer et al.	370/260

ART-UNIT: 277

PRIMARY-EXAMINER: Burgess; Glenton B.

ASSISTANT-EXAMINER: Salad; Abdullahi E.

ABSTRACT:

In a distributed system, a method and system for negotiating a multi-category Quality-of-Service (QoS) agreement between a client and a server includes a client agent enabled to calculate an expected utility to a client of multiple multi-category QoS specifications. The client agent obtains the QoS specifications by transmitting a QoS specification request to a server agent or a broker. The expected utility calculation, based on a probabilistic estimate of QoS levels included in the QoS specifications, enables the client agent to distinguish the QoS specifications of greater value from those of lesser value. The client agent selects at least one of the QoS specifications to be included into an offer for a QoS agreement based on the expected utility calculation. In a preferred embodiment, the client agent selects the QoS specifications determined to be most valuable to the client. The offer is transmitted to the server agent to request a service provided by a server at QoS levels represented by the selected QoS specifications. After transmitting the offer, the client monitors a connection to the server agent for either an acceptance, a rejection, or a counteroffer to the offer. Communication between the client agent and the server agent conforms to a negotiation protocol which provides a set of rules for transmission of negotiation messages.

19 Claims, 13 Drawing figures

[First Hit](#) [Fwd Refs](#)

Generate Collection

Print

L2: Entry 6 of 184

File: USPT

Feb 10, 2004

US-PAT-NO: 6691148

DOCUMENT-IDENTIFIER: US 6691148 B1

TITLE: Framework for providing quality of service requirements in a distributed object-oriented computer system

DATE-ISSUED: February 10, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Zinky; John A.	Cambridge	MA		
Schantz; Richard R.	Sharon	MA		
Bakken; David E.	Londonderry	NH		
Loyall; Joseph P.	Tewksbury	MA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Verizon Corporate Services Group Inc.	New York	NY			02
Genuity Inc.	Burlington	MA			02

APPL-NO: 09/ 220511 [PALM]

DATE FILED: December 24, 1998

PARENT-CASE:

RELATED APPLICATIONS This application is related to and claims the benefit of the filing date of U.S. provisional application, Ser. No. 60/077,870, filed Mar. 13, 1998, which is hereby incorporated by reference. Also, this application is related to applications, Ser. No. 09/220,716, now U.S. Pat. No. 6,480,879, and Ser. No. 09/220,530, filed concurrently herewith and hereby incorporated by reference.

INT-CL: [07] G06 F 15/16

US-CL-ISSUED: 709/201; 709/221, 709/227

US-CL-CURRENT: 709/201; 709/221, 709/227

FIELD-OF-SEARCH: 370/270, 707/500.1, 709/202, 709/224, 709/226, 709/220, 709/229, 709/316, 709/201, 709/221, 709/227

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>5713043</u>	January 1998	Baughner et al.	707/500.1
<input type="checkbox"/>	<u>5898668</u>	April 1999	Shaffer	370/230

<input type="checkbox"/>	<u>5944795</u>	August 1999	Civanlar	709/227
<input type="checkbox"/>	<u>6003079</u>	December 1999	Friedrich et al.	709/224
<input type="checkbox"/>	<u>6049819</u>	April 2000	Buckle et al.	709/202
<input type="checkbox"/>	<u>6088732</u>	July 2000	Smith et al.	709/229
<input type="checkbox"/>	<u>6154776</u>	November 2000	Martin	709/226
<input type="checkbox"/>	<u>6226273</u>	May 2001	Busuioc et al.	370/270
<input type="checkbox"/>	<u>6252857</u>	June 2001	Fendick et al.	370/254
<input type="checkbox"/>	<u>6278693</u>	August 2001	Aldred et al.	370/252
<input type="checkbox"/>	<u>6282581</u>	August 2001	Moore et al.	709/316
<input type="checkbox"/>	<u>6330586</u>	December 2001	Yates et al.	709/201
<input type="checkbox"/>	<u>6570867</u>	May 2003	Robinson et al.	370/351

OTHER PUBLICATIONS

David E. Bakken, On Specification, Metadata, and Binding of Multi-Property quality of Service, Proc. of 6.sup.th Intl. Working Conference on Dependable Computing for Critical Applications, IFIP, Grainau, Germany, Mar. 1997, 141-143.

David E. Bakken, Object-Oriented QoS: Some Research Issues, DARPA QoS Meeting Presentation, 37.sup.th IETF Meeting, San Jose, CA, Dec. 1996.

David E. Bakken et al., QoS Issues for Wide-Area CORBA-Based Object Systems, Proc. of 2.sup.nd Intl. Workshop on Object-Oriented, Real-Time Dependable Systems (WORDS 96), IEEE, Feb. 1996, 110-112.

Richard E. Schantz et al., Distributed Objects with Quality of Service: An Organizing Architecture for Integrated Systems Properties, Proc. of the 3.sup.rd Intl. Workshop on Object-Oriented, Real-Time, Dependable Systems (Words 97), IEEE, Feb. 1997.

John Zinky, Overview of Quality of Service for Distributed Objects, Proc. of 5.sup.th Dual Use Applications and Technologies Conference, IEEE, Utica, NY, May 22-25, 1995, 510-515.

David E. Bakken, Object-Oriented QoS for C2 Adaptivity and Evolvability, DARPA Workshop on Security Technology for Next-Generation C2 Systems, Institute for Defense Analyses, Alexandria VA, Jul. 29-30, 1996.

Steve Vinoski et al., CORBA: Integrating Diverse Applications Within Distributed Heterogeneous Environemtns, IEEE Communications Magazine, vol. 35, No. 2, Feb. 1997.

John A. Zinky, Architectural Support for Quality of Service for CORBA Objects, Theory and Practice of Object Systems, Jan. 1997.

Robert Orfali et al., Chapter 2, The Essential Distributed Objects Survival Guide, John Wiley & sons, 1996, 24-29.

Robert Orfali et al., Chapter 4, The Essential Distributed Objects Survival Guide, John Wiley & sons, 1996, 68-90.

ART-UNIT: 2858

PRIMARY-EXAMINER: Le; N.

ASSISTANT-EXAMINER: Benson; Walter

ATTY-AGENT-FIRM: Suchyta; Leonard Charles Weixel; James K.

ABSTRACT:

A system assures quality of service provided by a distributed network having at least one object. The system creates a contract that stores levels of quality of service offered by the network, determines a quality of service required by the object, and evaluates the contract to select a level of quality of service that corresponds to a current quality of service provided by the network. The system then compares the current quality of service to the required quality of service, and adjusts the current quality of service to obtain the required quality of service when the current quality of service fails to satisfy the required quality of service.

27 Claims, 11 Drawing figures

First Hit Fwd Refs

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L2: Entry 4 of 184

File: USPT

Feb 17, 2004

US-PAT-NO: 6693912

DOCUMENT-IDENTIFIER: US 6693912 B1

TITLE: Network interconnecting apparatus and active quality-of-service mapping method

DATE-ISSUED: February 17, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wang; Cai Dong	Tokyo			JP

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Oki Electric Industry Co., Ltd.	Tokyo			JP	03

APPL-NO: 09/ 542872 [PALM]

DATE FILED: April 4, 2000

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	11/157619	June 4, 1999

INT-CL: [07] H04 L 12/66US-CL-ISSUED: 370/401; 370/466US-CL-CURRENT: 370/401; 370/466

FIELD-OF-SEARCH: 370/389, 370/395.1, 370/395.21, 370/395.6, 370/401, 370/402, 370/404, 370/466, 709/230, 709/246, 709/249

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

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<input type="checkbox"/>	<u>5701465</u>	December 1997	Baughner et al.	707/10
<input type="checkbox"/>	<u>6175569</u>	January 2001	Ellington et al.	370/401
<input type="checkbox"/>	<u>6223222</u>	April 2001	Fijolek et al.	709/227
<input type="checkbox"/>	<u>6415313</u>	July 2002	Yamada et al.	709/200
<input type="checkbox"/>	<u>6430154</u>	August 2002	Hunt et al.	370/230.1
<input type="checkbox"/>	<u>6519254</u>	February 2003	Chuah et al.	370/389

ART-UNIT: 2662

PRIMARY-EXAMINER: Ngo; Ricky

ASSISTANT-EXAMINER: McLoughlin; Michael I

ATTY-AGENT-FIRM: Venable LLP Sartori; Michael A.

ABSTRACT:

When a connection passes through two communication networks that guarantee quality of service in different ways, an active packet is sent from one network to the other. Quality of service in the one network is mapped to quality of service in the other network by execution of a program included in the active packet, at the entry node of the other network. End-to-end quality of service is thereby guaranteed, unnecessary exchanges of quality-of-service information are avoided, and each network can modify its quality-of-service practices at its own convenience.

22 Claims, 13 Drawing figures